

REMARKS

Claims 1-64 remain pending in the present application. The Office Action:

· allowed claims 3-6, 8-11, 13, 15-16, 18, 20-27, 35, 37, 48-54, 58, and 64; and

· objected to claims 1, 2, 7, 12, 14, 17, 19, 28-34, 36, 38-47, 55-57, and 59-63.

The Office Action also closed prosecution on the merits in accordance with the decision in *Ex parte Quayle*. Applicants respectfully submit that the objections have been cured by amendment or are improvident and should be withdrawn.

I. 3D COORDINATES VS. THREE DIMENSIONAL COORDINATES

The Office Action required amendment of one particular limitation in claims 1-2, 7, 12, 14, 17, 19, 28-34, 38-44, 55-57, and 59-63—namely, it required amendment of the limitation “three-dimensional coordinate” and “coordinate” to “three dimensional coordinates” and “coordinates”, respectively. Applicants respectfully submit that, to identify a point in a volume, one specifies the coordinate of that point as the intersection of three dimensions. Thus, the point is described as a single coordinate in three-dimensions, *i.e.* it is a three-dimensional coordinate. Applicants’ chosen term “three-dimensional coordinate”, and its counterpart “coordinate” are therefore apt.

Furthermore, the formulations “three-dimensional coordinates” and “coordinates” proposed by the Office are plural. This means that they would limit the claims to more than one coordinate, which would exclude the embodiment of Figure 3 – Figure 4, which has only a single three-dimensional coordinate. Not only are the formulations proposed by the Office plural, they would require *three* separate coordinates. There is no support in the application as filed for the

proposition that the invention is limited to no less than three coordinates, although the application does support embodiments of three or more coordinates.

Applicants note that the limitation a "three-dimensional coordinate" is clearly supported by the application as filed. The specification first discloses the three-dimensional coordinate 320 on p. 8, at lines 5-13, which is clearly shown in Figure 3 as the intersection of three dimensions in the volume 305. This paragraph also describes how the higher order probe 315 is instantiated at the single three-dimensional coordinate 320. Note that there is no support for the proposition that the higher order probe 315 cannot be instantiated at only a single point. Similarly, there is no support for the proposition that the higher order probe 315 must be instantiated at no less than three coordinates.

Perhaps the Office is conflating the dimensions of a coordinate with the coordinate itself. Admittedly, a single dimension may define a coordinate, but this would be a one-dimensional coordinate, *i.e.*, a point on a line. Similarly, two dimensions may define a coordinate, *i.e.*, a two dimensional coordinate at the intersection of two dimensions. Such a two-dimensional coordinate defines a point on a plane. However, the present invention defines a point in a volume, which is an intersection of three dimensions and, hence, a three-dimensional coordinate.

Applicants therefore respectfully submit that the objections to claims 1, 2, 7, 12, 14, 17, 19, 28-34, 38-44, 55-57, and 59-63 are improvident. Applicants are correctly employing the limitations "three-dimensional coordinate" and "coordinate" and there is not support for the Office's position in the application as filed. Furthermore, the Office has failed to provide any reasoning in support of its position. Accordingly, Applicants request that this objection be withdrawn.

II. COMPUTER VS. SYSTEM

The Office Action required amendment of one particular limitation in claims 38-47, 55, and 63—namely, it required amendment of the term “computer” to “system.” The Office fails to provide any reasoning for requiring this change. Presumably, the Office feels “system” is more clear or otherwise more desirable than “computer.” However, Applicants respectfully submit that the term “computer” is very clear and is amply supported by the application as filed. Applicants note that the term “computing apparatus” is employed in the specification and has proposed amending the claims above from “computer” to “computing apparatus.” Applicants further note that, if the proposed amendment is entered, it is not made for purposes of patentability and does not narrow the scope of the claims.

III. OTHER INFORMALITIES

Applicants note that the drawings have been accepted.

Claim 36 was objected to for the typo in the term “thought”. The objection would be cured by the amendment proposed above should the Examiner accept the proposed amendment. Applicants note that, if the proposed amendment is entered, it is not made for purposes of patentability and does not narrow the scope of the claims.

In this paper, the Examiner provided a Statement of Reasons for the Indication of Allowable Subject Matter. Although Applicants gratefully acknowledge the Examiner's Allowance of the present claims, there are a variety of unique features recited in the allowed claims, including, but not limited to, the claim language cited in the Office Action.

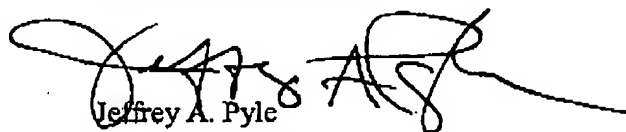
IV. CONCLUDING REMARKS

Accordingly, in view of the amendments and remarks presented herein, a Notice of Allowance is respectfully solicited.

The Examiner is invited to contact the undersigned attorney at (713) 934-4053 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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